



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of

LEWIN et al

Serial No. 10/534,495

Filed: May 10, 2005

For: STRUCTURED LIGHT PROJECTOR

Confirmation No.: 4506

Atty. Ref.: 124-1118

Group: 2886

Examiner: R. Punnoose

APPEAL BRIEF

On Appeal From Group Art Unit 2886

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January 18, 2011

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

I. REAL PARTY IN INTEREST

The real party in interest in the above-identified appeal is QinetiQ Limited by virtue of an assignment of rights from the inventors to QinetiQ Limited recorded May 10, 2005 at Reel 16935, Frame 615.

II. RELATED APPEALS AND INTERFERENCES

There are believed to be no related appeals, interferences or judicial proceedings with respect to the present application, other than the Pre-Appeal

Brief Request for Review previously filed in this appeal on September 30, 2010

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III. STATUS OF CLAIMS

Claims 1-37 stand rejected in the 5th Official Action mailed June 30, 2010 (a non-final Official Action). Claims 1-6, 9, 14-18, 20-23 and 25-34 stand rejected under 35 USC §103 as being unpatentable over Kuchitsu (JP 62007019). Claims 7, 8, 19 and 35 (the Examiner may have intended to refer to claim 36 as this is discussed on page 25 of the Final Rejection) stand rejected under 35 USC §103 as unpatentable over Kuchitsu in view of Yokoyama (U.S. Patent 7,131,735). Claim 24 stands rejected under 35 USC §103 over Kuchitsu in view of Tarsa (U.S. Patent 6,350,041). Claims 10-13 stand rejected under 35 USC §103 over Kuchitsu in view of Yokoyama in further view of Tarsa. Claims 35 and 37 stand rejected under 35 USC §103 as unpatentable over Kuchitsu in view of Twyman (U.S. Patent 1,577,388). Claim 1 also stands rejected under 35 USC §103 as being unpatentable over Twyman. The above rejections of claims 1-37 are appealed.

IV. STATUS OF AMENDMENTS

No further response has been submitted with respect to the non-final (and fifth) Official Action in this application other than the filing of a Pre-Appeal Brief Request for Review which decision was mailed November 16, 2010 (Paper No. 20101109).

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Appellants' specification and figures provide an explanation of the claimed invention set out in independent claim 1, with each claimed structure and structural interrelationship addressed as to its location in the specification and in the figures.

1. A structured light generator [shown as item 2 in Figure 1 and discussed on page 10, line 30 through page 11, line 2 and elsewhere in the specification] for illuminating a scene such that light reflected from the scene can be imaged to provide range information, said structured light generator comprising:

a light source [light source 4 as shown in Figure 1 and discussed on page 10, line 30 through page 11, line 2 and elsewhere in the specification] arranged to illuminate part of the input face of a light guide [kaleidoscope 6 in Figure 1 and discussed on page 10, line 30 through page 11, line 2 and elsewhere in the specification],

the light guide [6] comprising a tube having substantially reflective sides;
and

projection optics [projection lens 8 in Figure 1 and discussed on page 10, line 30 through page 11, line 2 and elsewhere in the specification] arranged

together with said light source [4] and said light guide [6] so as to project a regular array of distinct spots of the light source [4] towards the scene.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-6, 9, 14-18, 20-23 and 25-34 stand rejected under 35 USC §103 as being unpatentable over Kuchitsu (JP 62007019).

Claims 7, 8, 19 and 35 (as noted above, the Examiner may have intended this to be a reference to claim 36 which is discussed on page 25 of the Final Rejection) stand rejected under 35 USC §103 as being unpatentable over Kuchitsu in view of Yokoyama (U.S. Patent 7,131,735).

Claim 24 stands rejected under 35 USC §103 over Kuchitsu in view of Tarsa (U.S. Patent 6,350,041).

Claims 10-13 stand rejected under 35 USC §103 as unpatentable over Kuchitsu in view of Yokoyama further in view of Tarsa.

Claims 35 and 37 stand rejected under 35 USC §103 as unpatentable over Kuchitsu in view of Twyman (U.S. Patent 1,577,388).

Claim 1 also stands rejected under 35 USC §103 as being unpatentable over Twyman.

VII. ARGUMENT

Appellants' arguments include the fact that the burden is on the Examiner to first and foremost properly construe the language of the claims to determine what structures are covered by that claim. After proper construction of the claim language, the burden is also on the Examiner to demonstrate where one or more references teach the claimed structures recited in independent claim 1.

The Court of Appeals for the Federal Circuit has held that "the PTO has the burden under Section 103 to establish a *prima facie* case of obviousness." *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). "It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references."

In its recent decision, the U.S. Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (April 2007), held that it is often necessary for a court to look to interrelated teachings of multiple patents, the effects of demands known to the design community or present in the marketplace and the background knowledge possessed by a person of ordinary skill in the art in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. The Supreme Court held that "[t]o

facilitate review, **this analysis should be made explicit.**” (emphasis added) *Id.* at 1396.

The Supreme Court in its *KSR* decision went on to say that it followed the Court of Appeals for the Federal Circuit’s advice that **“rejections on obviousness grounds cannot be sustained by mere conclusory statements;** instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” (emphasis added, the Supreme Court quoting from the Court of Appeals for the Federal Circuit in *In re Kahn*, 78 USPQ2d 1329 (Fed. Cir. 2006)).

A. Evidence of piecemeal prosecution

The Manual of Patent Examining Procedure (MPEP) at Section 707.07(g) instructs that “piecemeal examination should be avoided as much as possible.” The prosecution history of this application evidences piecemeal prosecution. The first Official Action on the merits in this application (October 19, 2007) indicated that all claims were allowable and the only objection was with respect to the Examiner’s misreading of the title of the application.

Subsequently, the Examiner has sent a Notice of Non-Compliant Amendment (2/7/08) requiring a telephone interview with the Examiner’s supervisor on 3/17/08 resulting in subsequent withdrawal of the Notice of Non-Compliant Amendment;

a non-final double patenting rejection (7/29/08), followed by another interview with the Examiner and his supervisor resolving the matter;

a further non-final Official Action on 2/9/09, a Final Rejection on 1/8/10, which, after numerous telephone interviews with the Examiner and the Examiner's supervisor in April and May of 2010, the Examiner withdrew (purportedly dropping his argument that a use limitation in the preamble is objectionable). In the telephone interview on May 17, 2010, the Examiner confirmed the withdrawal of the Final Rejection.

A fifth Official Action (non-final) was mailed on June 30, 2010, which misstates several additional telephone interviews (the "Examiner-Initiated Interview" summary attached to the latest Official Action indicates that the interview "directly resulted in the allowance of the application" - in view of the current rejection, the Examiner probably checked the wrong box).

It is little wonder that the Examiner's recent request (interview summary mailed November 2, 2010) for a personal interview was not believed to be particularly helpful in view of the multiple telephone interviews with the Examiner and his supervisor (purportedly reaching agreement) which have not yet resulted in a notification of allowable subject matter since the October 19, 2007 Official Action.

Appellants believe that the claim language is relatively straightforward and the errors in the Official Action are readily apparent.

B. The Examiner fails to identify any prior art related to the claimed “structured light” generator

In attempting to support his rejection of independent claim 1 over the newly cited Kuchitsu reference, the Examiner fails to address the actual language of claim 1 and instead paraphrases the claim by stating that “claim 1 essentially comprises of three [sic] components.”

However, the preamble of claim 1 specifies that it is a “structured light” generator where “structured light” is a well known term of art. Applicants have previously submitted evidence and made of record the definition of “structured light” (see the attachment to the Amendment filed 6/16/09) which is defined as “projecting a known pattern of pixels (often grids or horizontal bars) on to a scene.”

Appellants’ specification on page 2 states “as used in this specification the term structured light generator shall be taken to mean a source which projects a plurality of distinct areas of light towards the scene.” Thus, it appears that on page 6 of the Office Action, the Examiner ignores the preamble of claim 1 which requires a “structured light” generator.

As pointed out in MPEP Section 2111.02, the *Kropa v. Robie* case clearly indicates that a preamble is claim language which must be considered, especially if

the preamble language indicates the manner in which the components are assembled. In paragraph I of Section 2111.02 regarding “preamble statements limiting structure” the MPEP states that “any terminology in the preamble that limits the structure of the claimed invention must be treated as a claimed limitation.”

By ignoring the preamble of the claims (as detailed on page 9 of the Official Action), the interrelationship of the remaining claimed elements is not specified – there is no requirement that the claimed elements be interrelated as a “structured light generator” or that they be interrelated so “light reflected from the scene can be imaged to provide range information.” It will be appreciated that the preamble does not merely recite use limitations.

Given the definition in Appellants’ specification and the evidence of record as to the well-known definition of “structured light,” the Examiner’s ignoring of the preamble limitation in Appellants’ claims is reversible error.

C. The Examiner errs in concluding that Kuchitsu teaches a “structured light” generator

The Examiner admits that “Kuchitsu’s apparatus outputs a constantly changing pattern.” (Official Action, page 10, line 1). As noted above, the Examiner apparently ignores the well-known definition of “structured light” as projecting “a known pattern of pixels” since a constantly changing, random pattern disclosed in Kuchitsu does not suggest a “known pattern of pixels.”

The definition of “structured light” also indicates that the “known pattern of pixels” is projected in such a way that “these deform when striking surfaces [allowing] vision systems to calculate the depth and surface information of the objects in the scene, as used in structured light 3D scanners.” (Definition of “structured light” of record attached to 6/16/09 Amendment). Appellants’ preamble specifies that the defined “structured light” generator illuminates the scene such that “light reflected from the scene can be imaged to provide range information” (claim 1, lines 1-3).

The Examiner’s admission on page 10 and elsewhere that “Kuchitsu’s apparatus outputs a constantly changing pattern” is very much appreciated. The Examiner should also admit that Kuchitsu’s apparatus outputs a completely “random” constantly changing pattern. Such patterns as created in Kuchitsu cannot be a “known pattern” - the random nature of the constantly changing patterns in Kuchitsu is the antithesis of the “known pattern” of a structured light generator.

Further, there is simply no suggestion that Kuchitsu’s apparatus (which the Examiner admits outputs a constantly changing pattern) can provide any “range information” (from its random, constantly changing patterns) as required in the preamble of Appellants’ claim. Because Kuchitsu does not disclose a “structured light” generator or the attributes thereof as recited in Appellants’ preamble, Appellants’ specification and in the definition of “structured light” known by those of ordinary skill in the art (as evidenced in the present record) defines a structural

combination and it appears that the Examiner is misconstruing what is taught by Kuchitsu.

In any event, there is no disclosure of a structured light generator being disclosed anywhere in the Kuchitsu reference, and, should the Examiner believe otherwise, he is again requested to specifically indicate where Kuchitsu teaches any “known pattern” let alone a patter which, when reflected “can be imaged to provide range information” as in the present claims.

D. The Examiner fails to identify where Kuchitsu has the claimed “projection optics” which are arranged “to project a regular array of distinct spots of the light source towards the scene”

As is known from the definition of “structured light” generator, there is a requirement that the light projected be a “regular array” of spots. This requirement is positively recited in the arrangement of the “projection optics” in Appellants’ claim 1 to require the projection of “a regular array” of spots of light.

The Examiner ignores this feature of Appellants’ claim, e.g., page 6 in the Examiner’s paraphrasing of the claim language, he merely states that projection optics are “for projecting an array of spots of the light source towards the scene” rather than the claim language of projecting “a regular array of distinct spots of the light source towards the scene.”

While it is noted that the Examiner alleges later on page 6 that Kuchitsu teaches projection objects to “project a regular array of distinct spots of the light

source towards the scene.” However, merely reviewing the abstract of the Kuchitsu reference will inform the Examiner that

“subjects 6 such as colored transparent sheet-like small chips are inserted into a space part 7 of a moving body 2 so as to be freely rotated . . . when the moving body 2 is rotated and light is irradiated from the light source 3, many virtual images of the subjects 6 are formed by the reflection of light in the cylindrical body 1 like a kaleidoscope and projected on the screen 5 through an expanding lens. Consequently, extremely complex patterns can be automatically and continuously displayed and can be used for various purposes.”

Thus, Kuchitsu does not have a “structured light” generator which uses light in a “known pattern” which, when reflected from a screen, can be used “to provide range information” nor does it project “a regular array of distinct spots of the light source.” Instead, as the Examiner admits, “Kuchitsu’s apparatus outputs a constantly changing pattern.” As can be seen from the Kuchitsu abstract, this constantly changing pattern is a random constantly changing pattern caused by the chips falling through the space enclosed by the moving body 2.

Again, because the Examiner does not meet his burden of proof to identify how or where elements in Kuchitsu can comprise “structured light” having a “known pattern” as required by Appellants’ claim preamble or where Kuchitsu teaches the interrelationship of the “projection optics arranged together with said light source” to “project a regular array of distinct spots of the light source towards the scene” there

is simply no support for a *prima facie* case of obviousness and the rejection is improper.

E. The Examiner fails to meet his burden of providing evidence establishing the first prong of a *prima facie* case of obviousness, i.e., that each claimed element and each claimed interrelationship between elements is disclosed in one or more cited reference

As noted in *In re Fine* cited above, the burden is on the Examiner to show some “objective teaching” in the prior art of each claimed structure and each claimed interrelationship between structures. As noted in sections B and C above, the Examiner fails to disclose the specifically claimed “structured light generator.” Also as noted in section D above, the Examiner fails to identify the “projection optics” which, in combination with the light source and the light guide, projects “a regular array of distinct spots of the light source towards the scene.”

Because neither of these two positively recited structures is disclosed in any of the cited references (the Examiner does not contend that these are shown in any reference other than Kuchitsu with the exception of Twyman). The Twyman reference is another kaleidoscope which provides a non-structured light generator for a random pattern of spots. The Examiner (at page 32) admits that Twyman “does not explicitly teach of projecting a regular array of spots of the light source towards a scene in a structured light generator for illuminating a scene” and this admission is

very much appreciated. As a result of the admission, Twyman cannot render obvious the subject matter of claim 1.

Accordingly, the Examiner fails to meet his burden of showing where these positively recited structures are disclosed in the cited prior art references or would be obvious in view of the cited prior art references and therefore the first prong of a *prima facie* case of obviousness is not met by the Examiner. Because the burden is on the Examiner to establish this case of obviousness, his failure to meet that burden means the rejection must fail.

F. The Examiner fails to meet his burden of proof with respect to the second prong of a *prima facie* case of obviousness, i.e., providing an explicit “analysis” as to reasons why one of ordinary skill in the art would combine the portions of the references in the manner of Appellants’ independent claim

As noted above in the relatively recent *KSR* Supreme Court case, in order to establish a *prima facie* case of obviousness, the Examiner not only has to demonstrate where all claimed elements and interrelationships between elements are disclosed in the combination of prior art references, but he must also provide an explicit “analysis” as to his reasons for picking and choosing elements from the prior art references and then combining them in the manner disclosed in Appellants’ claims.

In view of the Examiner’s admission on page 16, subsection A, i.e., “Kuchitsu does not explicitly teach of projecting a regular array of spots of the

light source towards a scene in a structured light generator for illuminating a scene,” one wonders how in view of Kuchitsu and/or Twyman, the Examiner rejects independent claim 1. It appears that the Examiner relies only upon the fact that Kuchitsu and Twyman both teach a kaleidoscope and, in various embodiments of the present invention, a portion of a kaleidoscope is also used as the claimed “light guide.”

The Examiner suggests that the light source in Kuchitsu could be analogous to the light source in Appellants’ claimed structured light generator. However, the Examiner makes no mention of the claimed “projection optics” or the interrelationship between the claimed elements (“arranged together with said light source and said light guide so as to project a regular array of distinct spots of the light source towards the scene”). This interrelationship of elements is what the Examiner admits is missing from the Kuchitsu and Twyman references.

There is clearly no allegation from the Examiner as to why he would combine elements disclosed in Kuchitsu or Twyman (the kaleidoscope and the light source) with an undisclosed element (the projection optics) in an admittedly undisclosed manner, i.e., for “projecting a regular array of spots.” The Examiner’s admissions are believed dispositive, at least with respect to claim 1, of the fact that he has failed to provide the required explicit “analysis” of his reasons for combining structures disclosed in the prior art. Accordingly, the Examiner has simply failed to meet the second burden of proving a *prima facie* case of

obviousness and therefore there is no support for the Examiner's rejection of claim 1 or claims dependent thereon.

VIII. CONCLUSION

The present application has been delayed for at least three years by the Examiner's failure to appreciate the definition of the term "structured light" as would be well understood by those of ordinary skill in the art. Supplemental evidence of that accepted definition has been supplied by the applicant in the attachment to the June 14, 2009 amendment. Several characteristics of "structured light" are recited in the preamble of each independent claim as characterizing the light as light that, when "reflected from the scene can be imaged to provide range information" and in the claim "to project a regular array of distinct spots of the light source towards the scene" – and yet these recitations are ignored by the Examiner. The reference to Kuchitsu teaches only a "constantly changing" series of spots formed by random movement of reflective chips tumbling in a rotating cylinder (Kuchitsu Abstract) and thus fails to support any *prima facie* case of obviousness, let alone anticipation.

As a result of the above, there is simply no support for the rejections of Appellants' independent claim or claims dependent thereon under 35 USC §103. Thus, and in view of the above, the rejection of claims 1-37 under 35 USC §103 is

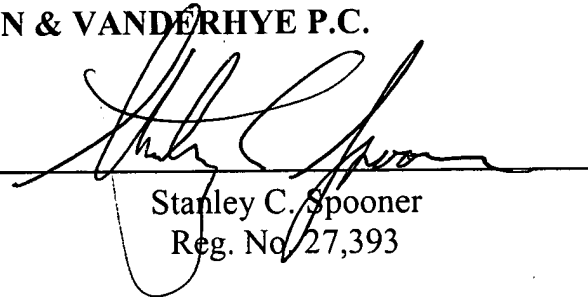
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clearly in error and reversal thereof by this Honorable Board is respectfully
requested.

Respectfully submitted,

NIXON & VANDERHYTE P.C.

By: _____

A handwritten signature in black ink, appearing to read "Stanley C. Spooner", is written over a horizontal line. The signature is fluid and cursive.

Stanley C. Spooner
Reg. No. 27,393

SCS:kmm
Enclosure



IX. CLAIMS APPENDIX

1. A structured light generator for illuminating a scene such that light reflected from the scene can be imaged to provide range information, said structured light generator comprising:

a light source arranged to illuminate part of the input face of a light guide, the light guide comprising a tube having substantially reflective sides; and projection optics arranged together with said light source and said light guide so as to project a regular array of distinct spots of the light source towards the scene.

2. A structured light generator as claimed in claim 1 wherein the light guide comprises a tube having a constant cross section.

3. A structured light generator as claimed in claim 2 wherein the cross section of the tube is a regular polygon.

4. A structured light generator as claimed in claim 3 wherein the tube has a square cross section.

5. A structured light generator as claimed in claim 1 wherein the cross sectional area of the light guide is in the range 1 to 50mm².

6. A structured light generator as claimed in claim 1 wherein the light guide comprises a hollow tube having reflective internal surfaces.

7. A structured light generator as claimed in claim 1 wherein the light guide comprises a tube of solid material adapted such that a substantial amount of light incident at an interface between the material of the tube and surrounding material undergoes total internal reflection.

8. A structured light generator as claimed in claim 1 wherein the light guide is between 10 and 70mm long.

9. A structured light generator as claimed in claim 1 wherein the projection optics comprises a projection lens.

10. A structured light generator as claimed in claim 7 wherein the tube of solid material is shaped at the output face to form the projection lens.

11. A structured light generator as claimed in claim 9 wherein the projection lens is a hemispherical lens.

12. A structured light generator as claimed in claim 11 wherein the centre of the hemispherical lens is located at the centre of the output face of the light guide.

13. A structured light generator as claimed in claim 1 wherein the array of images projected towards the scene have a common point of origin at a centre of an end face of the light guide.

14. A structured light generator as claimed in claim 1 wherein the projection optics are adapted to provide a substantially focussed image at a first distance and a substantially unfocussed image at a second distance, the first and second distance being within the range of operation of the apparatus.

15. A structured light generator as claimed in claim 14 wherein the first distance is larger than the second distance.

16. A structured light generator as claimed in claim 1 wherein the light source has a non-circular shape.

17. A structured light generator as claimed in claim 16 wherein the light source has a shape which is not symmetric about the axes of reflection of the light guide.

18. A structured light generator as claimed in claim 1 comprising more than one light source, each light source arranged to illuminate part of the input face of the light guide.

19. A structured light generator as claimed in claim 18 wherein the light sources are arranged in a regular pattern.

20. A structured light generator as claimed in claim 18 wherein the light sources are arranged such that different arrangements of sources are used to provide differing spot densities.

21. A structured light generator as claimed in claim 18 wherein at least one light source emits light at a wavelength different from the wavelength of another light source.

22. A structured light generator as claimed in claim 18 wherein at least one light source is shaped differently from another light source.

23. A structured light generator as claimed in claim 18 wherein at least one light source has a shape that is not symmetric about a reflection axis of the light guide.

24. A structured light generator as claimed in claim 18 wherein at least one light source is located within the light guide, at a different depth to another light source.

25. A structured light generator as claimed in claim 1 wherein the light source is arranged to run from one side of the input face to another such that the structured light generator illuminates the scene with an array of lines.

26. A structured light generator as claimed in claim 25 wherein the light source is arranged relative to the light guide so as to illuminate the scene with intersecting lines.

27. A structured light generator as claimed in claim 25 wherein the light source is adapted so as to be capable of illuminate the light guide so as to produce either an array of lines or an array of separate spots.

28. A structured light generator as claimed in claim 1 wherein the light source is arranged to illuminate the input face of the light guide through a mask.

29. A structured light generator as claimed in claim 28 wherein the mask has at least one transmissive portion, the or each transmissive portion being arranged to illuminate only part of the input face of the light guide.

30. A structured light generator as claimed in claim 29 wherein the or at least one of transmissive portions of the mask has a non-circular shape.

31. A structured light generator as claimed in claim 30 wherein the mask has a plurality of transmissive portions and at least some of the transmissive portions have different shapes.

32. A structured light generator as claimed in claim 28 wherein the mask has a plurality of transmissive portions and at least some transmissive portions are transmissive at different wavelengths.

33. A structured light generator as claimed in claim 28 wherein has at least one transmissive portion arranged to run from one side of the input face of the light guide to another such that the structured light generator illuminates the scene with an array of lines.

34. A structured light generator as claimed in claim 28 wherein the mask comprises a modulator adapted such that the transmission characteristics of at least part of the mask may be varied.

35. A structured light generator as claimed in claim 28 further comprising a homogeniser disposed between the light source and the mask.

36. A structured light generator as claimed in claim 1 wherein the generator projects an array of images over an angle of between 50° to 100°.

37. A structured light generator as claimed in claim 1 wherein the generator has a depth of field of 100mm to infinity.

X. EVIDENCE APPENDIX

1. "Structured light" definition, http://en.wikipedia.org/wiki/Structured_light

Structured light

From Wikipedia, the free encyclopedia

Structured light is the process of projecting a known pattern of pixels (often grids or horizontal bars) on to a scene. The way that these deform when striking surfaces allows vision systems to calculate the depth and surface information of the objects in the scene, as used in structured light 3D scanners.

Invisible (or Imperceptible) Structured Light is a technique to utilise structured light without interfering with other computer vision tasks for which the projected pattern will be confusing. Example methods include the use of infrared light or of extremely high framerates alternating between two exact opposite patterns.



A structured light pattern designed for surface inspection.[1]
(<http://hdl.handle.net/2014/3937>)

See also

- Stereoscopy
- 3D scanner#Structured light
- Structured Light 3D Scanner

Papers

- High-accuracy stereo depth maps using structured light (<http://community.middlebury.edu/~schar/papers/structlight/>)
- A comparative survey on invisible structured light (http://pagesperso-orange.fr/fofi/Downloads/Fofi_EI2004.pdf)
- A Real-Time Laser Range Finding Vision System (<http://www.seattlerobotics.org/encoder/200110/vision.htm>)

External links

- What is Structured Light? (http://www.stockeryale.com/i/lasers/structured_light.htm)
- Projector-Camera Calibration Toolbox (<http://code.google.com/p/procamcalib/>)
- Tutorial on Coded Light Projection Techniques (http://eia.udg.es/~qsalvi/Tutorial_Coded_Light_Projection_Techniques_archivos/v3_document.html)

Retrieved from "http://en.wikipedia.org/wiki/Structured_light"

Categories: Computer vision

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XI. RELATED PROCEEDINGS APPENDIX

None.